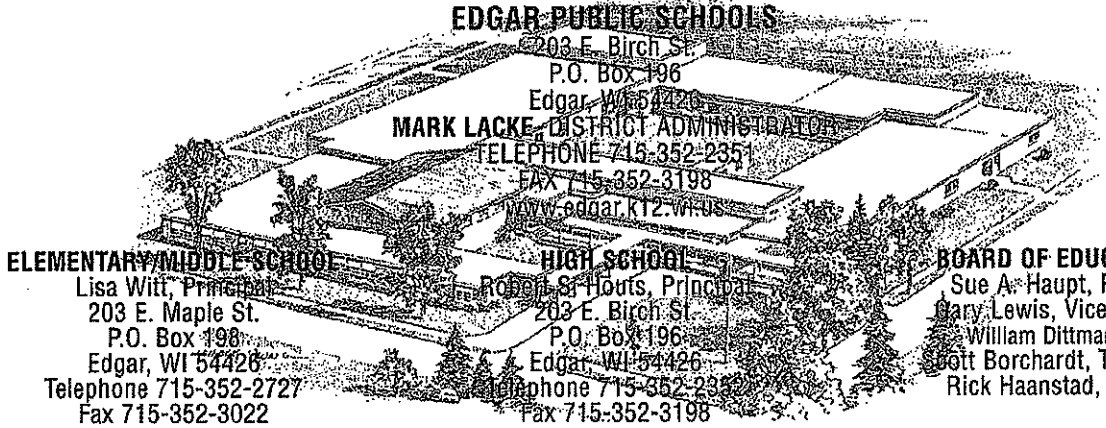
SCHOOL DISTRICT OF EDGAR



EDGAR PUBLIC SCHOOLS
203 E. Birch St.
P.O. Box 196
Edgar, WI 54426
MARK LACKE, DISTRICT ADMINISTRATOR
TELEPHONE 715-352-2351
FAX 715-352-3198
www.edgar.k12.wi.us

ELEMENTARY/MIDDLE SCHOOL
Lisa Witt, Principal
203 E. Maple St.
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Edgar, WI 54426
Telephone 715-352-2727
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HIGH SCHOOL
Robert St. Houts, Principal
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December 19, 2007

Representative Eugene Hahn
Chairman, Assembly Committee on Biofuels and Sustainable Energy
Room 15 West, State Capitol
Madison, WI 53708

Committee members,

The School District of Edgar is in full support of renewable energy legislation as proposed in AB607 and AB 625. We are encouraged by the educational opportunities for our students as outlined in the Wind Energy Initiative Project partnering CESA #10 area schools and Johnson Controls Company. The financial liability safeguards designed in this project illustrate the cooperative ventures that Wisconsin schools and businesses should be entering. Please lend your support to this legislation.

Sincerely,

Mark Lacke- Administrator
School District of Edgar

cc: Assembly Committee on Biofuels and Sustainable Energy

Winter School District

Dr. Penny Boileau, District Administrator –
pboileau@winter.k12.wi.us
Adam Zopp, K-12 Principal – azopp@winter.k12.wi.us
Deborah Aaron, Director of Pupil Services
6585 W. Grove Street, P.O. Box 310
Winter, WI 54896
Phone 715-266-3301
Fax 715-266-2216

December 18, 2007

Representative Eugene Hahn
Chairman, Assembly Committee on Biofuels and Sustainable Energy
Room 15 West, State Capitol
Madison, WI 53708

Committee Members:

I am writing to notify you the Winter School District is in full support of renewable energy legislation as proposed in AB607 and AB625.

We are encouraged by the innovative partnerships and educational opportunities that can result from this project. We are also hopeful this a way for schools to view school funding in a new light with cooperation with business.

Sincerely,

Dr. Penny L. Boileau
District Administrator

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
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Assembly Bill 607

Assembly Committee on Biofuels and Sustainable Energy

Department of Natural Resources Testimony
Robert J. Mather, Director Bureau of Forest Management
Division of Forestry
December 19, 2007

Mr. Chairman and Committee Members:

Good morning. My name is Bob Mather and I am the Director of the Bureau of Forest Management in the Department of Natural Resources' Division of Forestry. I appreciate this opportunity to appear before you to discuss AB 607.

The Department of Natural Resources (DNR) supports efforts to increase the state's usage of renewable energy resources like wind. A one-megawatt wind turbine could power roughly 350 homes and annually displace 1,600 tons of carbon dioxide, nine tons of sulfur dioxide and four tons of nitrous oxide that would result from burning fuels (www.cielowind.com). Today, wind developers are installing turbines rated at 600 KW to 2 MW with rotor spans of about 150-260 feet (47 to 80m). Additionally, wind power has none of the secondary environmental impacts associated with fuel development and transport.

While the benefits for wind energy are enormous, the Department is trying to work with prospective developers to assure proper siting of projects that avoid and minimize other possible environmental impacts. The Department is against allowing wind turbines on Managed Forest Lands (MFL) for a variety of reasons. However, I will propose an alternative which may help you achieve the objective of this bill.

The MFL program is a highly visible program that many stakeholders are watching to insure that public benefits are realized in exchange for a property tax deferral/savings.

The purpose of the MFL program is to encourage the management of private forest lands for the production of future forest crops for commercial use through sound forestry practices. State statutes and administrative codes state that lands used for industrial purposes are not permitted under the MFL program. Wind turbines have consistently been identified as an industrial use.

The Department receives numerous requests from industries and individuals to allow them to place cable relay stations, cell towers, wind generators, advertisement signs, highway debris, equipment storage, rabbit pens, pheasant farms, ropes courses, green burials, and other incompatible uses, on MFL lands without being required to remove the lands from the MFL program.

While some of these requests have some public benefit, the Department has consistently determined that none of these uses meet the underlying purpose of the MFL program; providing

an array of public benefits long-term from sustainably managed forests.. Allowing industrial uses on MFL lands will reduce the amount of lands that are capable of being managed for the benefits that MFL lands produce for Wisconsin's citizens. Those benefits include forest products, woody biomass for energy, wildlife habitat, soil stabilization, clean water and air, the reduction of forest fragmentation, the absorption of carbon, to name a few.

Well managed forests such as those enrolled in MFL provide many environmental, social and economic benefits to our citizens including reducing the carbon foot print. Is it better to construct wind turbines outside of the forests in order to maintain these benefits and generate clean power?

We question whether use of forested lands makes sense for wind energy purposes.

Wind turbines do not run as efficiently in forests as they would in open lands. Large forested areas dramatically decrease the wind speed and increase turbulence levels, wind shear and turbine loading. The reduction in energy from having no trees around a wind turbine to having trees 60 feet tall is over 50%[1]. An increase in hub heights reduces the effect of the trees, but not enough to compensate for the impact of the trees. [2]

There are potential fiscal impacts to this proposed legislation. Local municipalities would be affected by not being able to tax lands with wind turbines as industrial or commercial lands, which are taxed at a higher rate than MFL lands. Municipalities would have to provide a level of service to these commercial lands, including road maintenance, snow plowing, electric service and police protection, that is not commonly provided to any significant degree on undeveloped forest lands. Greater expenses may be incurred by the municipality with less financial return from those lands if they remain in MFL.

A Wisconsin resident who owns land in Michigan recently shared some negotiations that he has been having with a company who would like to erect a wind turbine on his property. He reported that companies are paying landowners $20 to $30 per acre for the intent to lease lands for wind turbines in order to get enough lands to do a feasibility study. When enough lands are acquired for the feasibility study the actual study is conducted. If the feasibility study has favorable results landowners receive a $10,000 payment for the company to build the wind turbine. Each year thereafter the landowner receives a 2% royalty payment per wind turbine. Based on the average profits across all wind farms these royalty payments may average $10,000 per year. Allowing income of this magnitude, while at the same time compromising some of the public benefits from sustainably managed forest land, are difficult to justify under the MFL program.

Let me propose an alternative for your consideration. The alternative would allow for exempt withdrawal of lands from the MFL program exclusively for the purpose of developing wind energy in situations where prior approval by the local township and county has been obtained. Local municipalities would not be receiving the withdrawal taxes but would benefit from having the renewable energy available to their residents. The Department encourages the legislature to dialogue with the towns and county associations so they may assess this alternative and develop guidance on how this procedure might work.

I appreciate this opportunity to express the Department's concerns with AB 607 and would be glad to answer any questions you might have.

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[1] Richard Boddington, Senior Renewable Energy Consultant, SgurrEnergy. Effect of Forestry on Wind Regime and Energy Yield. http://www.bwea.org/pdf/trees/Sgurr.pdf

[2] Richard Boddington, Senior Renewable Energy Consultant, SgurrEnergy. Effect of Forestry on Wind Regime and Energy Yield. http://www.bwea.org/pdf/trees/Sgurr.pdf

Dear Members of the Committee on Biofuels and Sustainable Energy –

My name is Tim Escher. I very much appreciate your consideration of Assembly Bill 607 to allow wind turbines on Managed Forest Lands, provided that they do not significantly impact sound forestry practices.

Finding sustainable sources of energy is at the top of our public agenda as we begin to see the impact of greenhouse cases on our environment, and the impact of oil, gas, and electric prices on our economy. Finding an alternative to fossil fuels is not only desirable to lower costs, it is imperative that we do so to safeguard our future.

One way homeowners and small farmers can help is to provide local generation at the home or farm. This can be provided in several ways, such as geothermal wells, solar electric or solar heating panels on the roof, or small residential grade wind turbines. This bill specifically addresses the last option.

Many rural property owners have set aside woodlands under the Managed Forest Law program. Some of the same characteristics that make these lands optimal for the MFL designation also make them optimal for turbine placement. Highlands or ridges unsuitable for farming are frequently good for MFL land, and ideal for turbine placement. Since MFL designation requires at least 10 acres of land, this provides a natural buffer between the turbine and other residences.

Of course, the big picture goal is to improve the environment, which both uses drive towards.

I do not see this bill as requiring the DNR to allow large scale wind farms on MFL lands, which probably would be incompatible with good forestry practice. Rather it allows flexibility when a small wind turbine makes economic and environmental sense, and does not significantly deter from good forestry practice.

Below are answers to some questions you might have regarding the implications of this bill:

How much land needs to be cleared for a residential wind turbine?

There are 2 common types of residential wind turbines – free standing lattice and guyed towers. 120' towers would be needed in areas with trees (allowing for 80' trees). A free standing 120' lattice tower requires a 19' square concrete pad or **about .008 acres**. A 120' guyed tilt-up tower requires about a 75' square area for the guy wires, plus a 100' x 20' additional area for the tilt landing, or **about .18 acres.**

See below for pictures or both kinds of towers.

How far away can the turbine be from the residence?

Up to 500 feet. This is a limit due to wire voltage drop-off, not a safety limitation. Lines are typically buried. Longer distances can be achieved through transformers but are not typically economically feasible.

Will we end up with MFL lands significantly chopped up for wind turbines?

I would propose that any rules the DNR put together be crafted to prevent this, such as setting a maximum number of turbines per land area (such as one or two turbines per MFL parcel, or one turbine per 40 acres), or leaving in place the maximum 20% non-forested rule that currently exists. In other words, allow turbines as long as no more than 20% of the land is non-forested as a result.

Do roads need to be constructed to build or maintain the towers?

No. For a free-standing lattice, a light duty crane is required to raise the tower. For a tilt-up, a powered auger or backhoe is needed to create holes for guy anchors. This equipment is not needed any more once the tower is up. Any trees cleared during construction should have regular stumpage fees applied, then they can grow back as normal.

How is this different than allowing cell phone towers?

Cell phone towers typically require an additional support building. They also do not have the same goal as wind turbines – providing sustainable energy and helping the environment.

Do wind turbines interfere with birds?

Studies have shown that statistically, a single house cat, a window pane, or an automobile is a much greater threat to birds than a wind turbine of any size. See the following publication for more details: http://www.focusonenergy.com/data/common/dmsFiles/W_RI_MKFS_Windturbinesandbirdsv0207.pdf

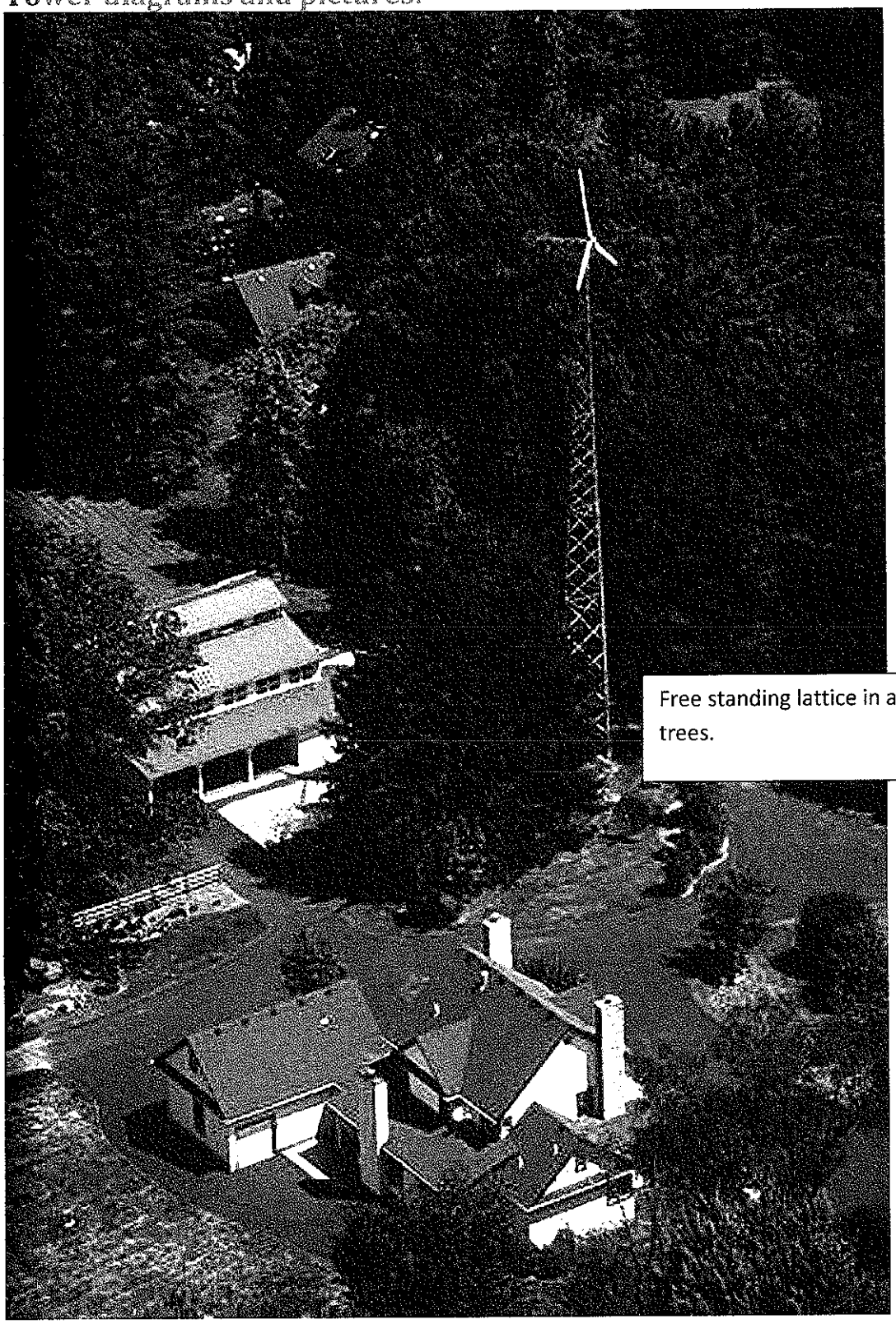
How much power do typical residential wind turbines provide?

A 10 kW unit (medium sized) will power an average home (1000 kWh per month), depending on wind speed in the area.

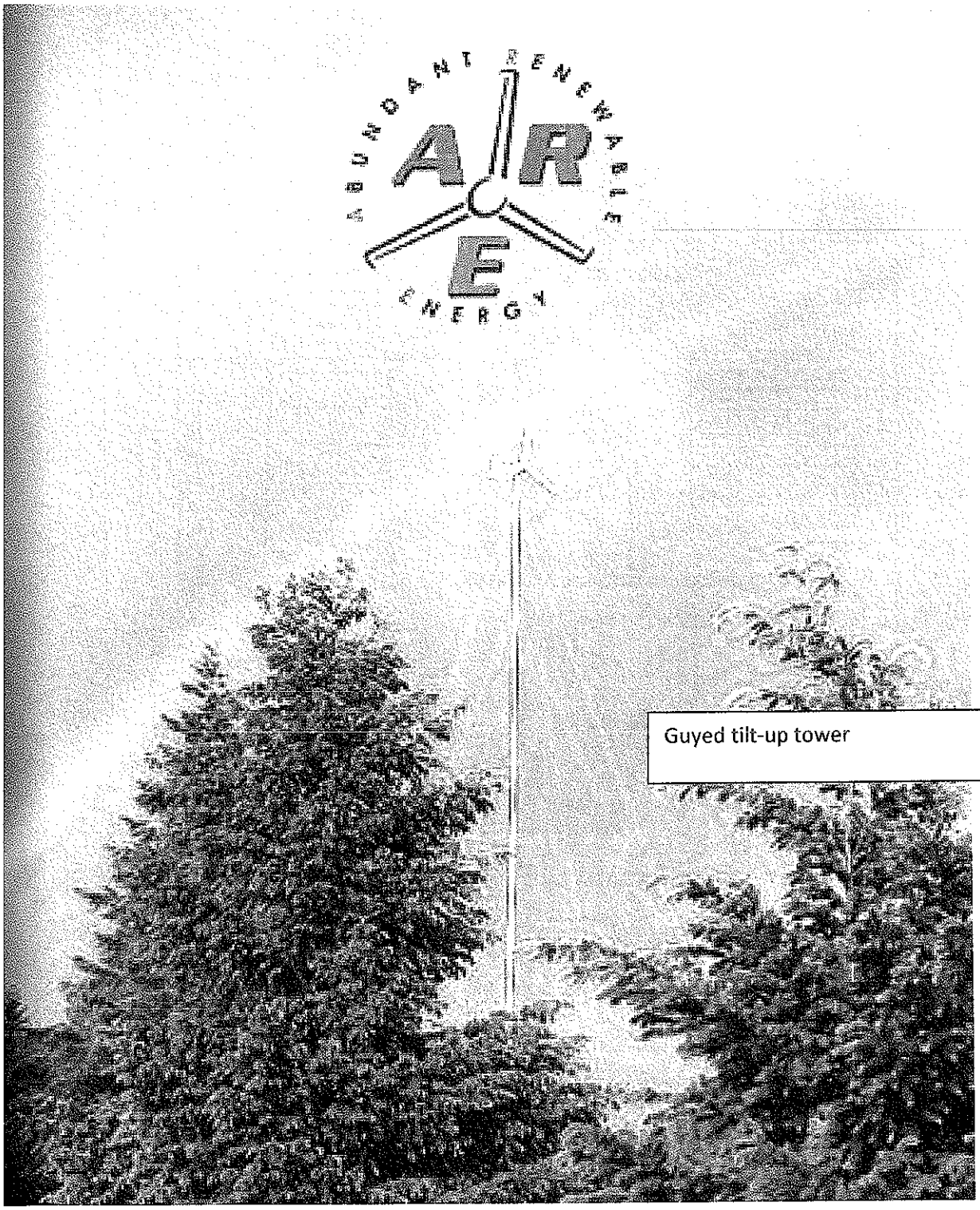
My contact information:

Tim Escher
N2378 Summerville Park Road
Lodi, WI 53555
(608) 592-5838 tim@eschers.com

Tower diagrams and pictures:



Free standing lattice in an area with trees.


AIR
ENERGY
Guyed tilt-up tower